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# AN ANALYSIS

OF

## FIVE THOUSAND CASES OF SKIN DISEASE,

WITH REMARKS UPON SOME OF THE PRINCIPAL  
GROUPS AND CASES.

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THESE cases are taken from the records of the out-patient department for skin diseases of the Massachusetts General Hospital, and they include, in consecutive order, all the cases which have been treated there during the past six years. The value of such analyses, incomplete as they necessarily are in many respects, is still great, as they yield valuable information concerning the aetiological relations of many cutaneous diseases, and furnish the data for comparing the prevalence of these affections in various countries. The publication of similar reports, even when consisting of mere lists, in the principal cities of the Old World and our own by competent dermatologists, has established the fact of remarkable variation in the occurrence of certain affections, for which as yet no satisfactory explanation has been discovered. Other cutaneous diseases seem to be under the action of a law which works alike among all classes and nations; while on the other hand local influences of climate and customs are found to be productive of distinct types of affections of the skin. These questions of geographical and race influence should form one of the most important subjects of discussion at the dermatological section of the coming centennial international medical congress at Philadelphia.

The establishment of special departments for skin diseases in connection with the dispensaries of the large hospitals of our great cities during the past few years has made the collection of such data possible, but has done very little besides this for the advance of the study of dermatology. We still lack the opportunities of hospital accommodation for this class of patients, which is so essential for the complete study and treatment of these affections. The dermatologist in charge sees, and can show for a moment to the student, great numbers of cases, it may be, in a year, but the faculty of a snap diagnosis thus taught and ac-

quired is but a small part of the subject. A knowledge of the natural progress of disease and of the modifications affected in it by treatment can be acquired only by daily observation of individual cases under the complete control of the teacher. This is the knowledge which makes the understanding and successful treatment of skin diseases possible, and it can be acquired only by the establishment of wards for their exclusive care. Without them the dermatologist of America is deprived of advantages for self-improvement and instructing which his foreign brethren have long been provided with; our students must seek abroad the means of perfecting themselves which are denied them at home; and the pitiable subjects of these distressing affections must suffer from such unequal distribution of hospital charity.

The class of cases presenting themselves for treatment at the skin department of the Massachusetts General Hospital, represented below, is different in some respects from that found in some other dispensaries, as it is drawn from a wider district, patients coming to it from a large portion of New England. The relative preponderance of foreigners over natives is thereby considerably reduced, and the proportion of serious over trivial affections correspondingly increased, as the number of the latter seeking relief from a distance is naturally small. The nature of the cases, however, is as diverse as is usually presented in such lists, representing, as they do, such various relations of life; for it is by no means the poor alone who avail themselves of the gratuitous advice of the department. Most notable differences, however, will be discovered in the character of the diseases by comparing the list below with those drawn from the private case-book of the dermatologist; the extremes being, on the one hand, the representatives of poverty and filth, on the other of luxury and the refinement of bodily care. But no one without the experience derived from the study of both classes can form an intelligent opinion of the nature of the cutaneous diseases of any community.

There is a most necessary preliminary question to be settled in the preparation of an analysis of this sort, that, namely, of nomenclature and classification. Such a necessity is the great misfortune of dermatology, for until it has a fixed language of terms which can be universally understood and used, there can be no greater chance of establishing it upon a stable and working basis than there was of erecting the structure of Babel. Nearly every dermatologist feels at liberty to invent new and change old names, and some are not satisfied long even with those of their own creation. Titles, to be understood, should be written not only with the author's initial after them, as those in zoölogy and botany, but with the date of issue as well. A large part of a lecture to students on any of the common affections of the skin must be wasted in attempting to explain and reconcile such differences of nomenclature as occur even in their common text-books on the subject. It is hard to say whose is

the whole fault of such confusion ; it certainly is not inherent in dermatology itself. One reason for it, no doubt, is the constant attempt of individual authors to correct it by substituting a system of their own invention as a panacea. Such efforts are worse than useless, for they only add a new element of discord for future elimination. There is but one way, as it seems to me, out of the maze ; that is, the establishment of an international committee on the subject, to be appointed by a congress of dermatologists from all parts of Europe and America, who by mutual concessions shall agree upon a system of nomenclature and classification, which shall be adopted and left inviolate by individual writers, and altered only at future sessions of the congress, to which all proposed changes and additions shall be referred. Such a plan should not be impracticable, at least so far as concerns nomenclature, and in view of the universal dissatisfaction with the present state of affairs, would, I believe, be eagerly entertained. This question, too, certainly should receive the earnest consideration of the committee having in charge the organization of the section of dermatology of the centennial congress.

In want of such a key at present, however, what plan shall be followed in the registration of the cases to be published below, that the names employed may convey to readers everywhere the exact nature of the cases ? Evidently one which is already clearly understood and most widely distributed. In selecting, therefore, as best adapted for such purpose, the system of Professor Hebra, I shall succeed in informing every dermatologist who may chance to see them of the character of the affections contained in the following lists, even if I do not wholly agree with that distinguished teacher as to the proper position and name of some of them. Such exceptions will, however, be more appropriately considered in subsequent papers upon some of the principal groups and remarkable cases tabulated below. It will be understood, therefore, that the diseases arranged alphabetically, for convenience' sake, in Table I. are mainly those described by Hebra under the titles there used ; and that in Table II. they are grouped in accordance with his system of classification.

That the sum of these diseases therein enumerated will be found somewhat larger than the number of patients given, is explained by the fact that some of them were affected by two or more of the diseases at one time.

The sex and nationality of the patients were as follows : Men, 1414 ; women, 1678 ; children under fourteen years, 1908 ; of native stock, 1885 ; of foreign stock, 3115.

TABLE I. — DISEASES ARRANGED ALPHABETICALLY.

Abscess . . . . .	6	Melasma . . . . .	1
Acne . . . . .	348	Milium . . . . .	3
Alopecia . . . . .	13	Molluscum contagiosum .	9
Alopecia areata . . . . .	17	Molluscum fibrosum . . . . .	2
Ambustio . . . . .	7	Morbilli . . . . .	1
Bromidrosis . . . . .	1	Musquito poisoning . . . . .	53
Chloasma . . . . .	16	Nails, disease of . . . . .	5
Comedo . . . . .	3	Nævus vascularis . . . . .	18
Condyloma . . . . .	2	Pemphigus . . . . .	15
Cornu cutaneum . . . . .	1	Pernio . . . . .	7
Dermatitis . . . . .	34	Phtheiriasis capitis . . . . .	216
Ecthyma . . . . .	55	Phtheiriasis corporis . . . . .	48
Eczema . . . . .	2242	Phtheiriasis pubis . . . . .	7
Elephantiasis Arabum . . . . .	5	Pruritus . . . . .	50
Epithelioma . . . . .	25	Psoriasis . . . . .	152
Erysipelas . . . . .	52	Purpura . . . . .	19
Erythema exudativum multiforme . . . . .	73	Rhus poisoning . . . . .	20
Erythema nodosum . . . . .	8	Scabies . . . . .	139
Folliculitis (heat) . . . . .	12	Scarlatina . . . . .	1
Furunculosis . . . . .	65	Scleroderma . . . . .	4
Herpes . . . . .	28	Scrofuloderma . . . . .	27
Herpes zoster . . . . .	73	Sebaceous cyst . . . . .	2
Hirsuties . . . . .	1	Seborrhœa . . . . .	55
Hyperæsthesia . . . . .	2	Syphiloderma . . . . .	327
Hyperidrosis . . . . .	5	Tinea favosa . . . . .	17
Hypertrophied scars . . . . .	3	Tinea tonsurans . . . . .	180
Ichthyosis . . . . .	5	Tinea versicolor . . . . .	81
Impetigo . . . . .	19	Tyloma . . . . .	2
Keloid . . . . .	11	Ulcer . . . . .	309
Lentigo . . . . .	1	Urticaria . . . . .	132
Leprosy . . . . .	1	Varicella . . . . .	22
Leucoderma . . . . .	1	Varix . . . . .	2
Lupus . . . . .	11	Verruca . . . . .	14
Lupus erythematosus . . . . .	6	Xanthoma . . . . .	2
Maculæ atrophicæ . . . . .	1	Imperfect diagnosis . . . . .	108

## TABLE II. — DISEASES ARRANGED UNDER HEBRA'S CLASSES.

Class I. Hyperæmiæ.

Class II. Anæmiæ.

Class III. Disorders of the glands, 91.

*Sebaceous Glands* : Seborrhœa, 55 ; xeroderma, 13 ; molluscum contagiosum, 9 ; milium, 3 ; comedo, 3 ; sebaceous cyst, 2.

*Sweat Glands* : Hyperidrosis, 5 ; bromidrosis, 1.

Class IV. Exudative diseases, 3561.

Varicella, 22 ; measles, 1 ; scarlatina, 1 ; erythema exudativum multiforme, 73 ; erythema nodosum, 8 ; urticaria, 132 ; dermatitis calorica, 26 ; dermatitis traumatica, 2 ; dermatitis venenata, 73 ; dermatitis erythematosa, 86 ; dermatitis phlegmonosa, 71 ; herpes, 101 ; pemphigus, 15 ; psoriasis, 152 ; eczema, 2242 ; scabies 139 ; acne, 348 ; impetigo, 19 ; ecthyma, 55.

Class V. Hæmorrhages, 19.

Purpura, 19.

Class VI. Hypertrophies, 40.

*Pigment* : Lentigo, 1 ; chloasma, 16 ; melasma, 1.

*Keratoses* : Tyloma, 2 ; ichthyosis, 5 ; verruca, 14 ; cornu, 1 ; condyloma, 2 ; hirsuties, 1, ~~1~~ Scleroderma, 4 ; elephantiasis Arabum, 5.

Class VII. Atrophies, 37.

Leucoderma, 1 ; maculæ atrophicæ, 1 ; alopecia, 30 ; atrophy of nails, 5.

Class VIII. Benign new growths, ~~32~~ 82.

Keloid, 11 ; hypertrophied scars, 3 ; molluscum fibrosum, 2 ; xanthoma, 2 ; nævus vascularis, 18 ; varix, 2; ✓

Class IX. Malignant new growths, ~~10~~ 36.

Lupus erythematosus, 6 ; lupus vulgaris, 11 ; scrofuloderma, 27 ; leprosy, 1 ; epithelioma, 25.

Class X. Ulcerations, 309.

Ulcers (non-syphilitic), 309.

Class XI. Neuroses, 52.

Pruritus, 50 ; hyperæsthesia, 2.

Class XII. Parasitic, 549.

*Vegetable* : Tinea tonsurans, 180 ; tinea versicolor, 81 ; tinea favosa, 17.

*Animal* : Phtheiriasis capitis, 216 ; phtheiriasis corporis, 48 ; phtheiriasis pubis, 7.

Cutaneous syphilides: acquired, 264 ; congenital, 63.

Uncertain diagnosis, 108.

As already stated the affections enumerated in the tables may be more particularly considered to best advantage by the groups or classes into which they naturally fall by mutual relationship. Just what is the most natural or practical system of dividing or arranging skin diseases it is not the purpose of this paper to discuss. I have adopted that of Professor Hebra (Table II.), not that I think it perfect, for it might be made simpler by reducing the number of its classes, but because I think it is on the whole by far the best, and the best known.

Class I., *Hyperæmias*, and Class II., *Anæmias*, for instance, might seem to be useless in a system of classification, because of five thousand consecutive cases of disease not one is referred to them, while hyperæmia is one of the most constant and important phenomena of a large proportion of them. It is, however, because it is a symptom merely, and one in a chain of tissue-changes, that its occurrence in them does not suffice to characterize and enroll them in the class of which it is the sole and essential type. The hyperæmic affections belonging properly to Class I. are mainly the fugitive congestions of the skin, like the erythemas and roseolas accompanying the exanthemata, and following contact with the milder irritants (rubefacients), which are so trivial and fleeting in their course that they do not present themselves at dispensaries for treatment. The anæmias of the skin (Class II.) are almost wholly symptomatic of general conditions of disease, and can scarcely be considered as independent cutaneous affections.

Class III. *Affections of the Cutaneous Glands* (91 cases). It is largely in connection with the diseases placed in this group that the remark made in the beginning concerning the differences in character of the affections occurring in private and in dispensary practice holds true, especially if we were to consider with them those which might be held to be merely their advanced stages. The cause of such difference is of easy explanation. The disorders of the glands, both functional and structural, seldom give rise to subjective symptoms of a distressing character, or in any way affect the general condition or life of the patient, although they are most frequent sources of disfigurement. They are, therefore, largely neglected by those classes of society which care little for troubles which do not interfere with their grosser ideas of comfort, while on the other hand they are so annoying to those who prize beauty and cleanliness as essentials of living, that they are often considered as of more importance than other really serious derangements of the system. Affecting apparently all classes alike, the number of patients seeking relief from them among the refined and wealthy is therefore vastly in excess of the proportion they bear in these tables, which mainly represent the other class. We see, for instance, that seborrhœa occurs but fifty-five times, and forms only about one per cent. of all cases, whereas in two thousand consecutive cases tabulated from my private record-

books it occurs more than two hundred times, or ten per cent. of all cases.

Of the affections of the sebaceous glands, the most common, as will be seen, are those embraced under this term seborrhœa, which according to Hebra's definition, too abundant flow of sebum, includes a great variety of forms, according to seat and changes in the character of the secretion. A few of the cases were of the oleosa type and of the face, affecting the nose and forehead, giving to these parts the greasy look, and accompanied in a small proportion by the reddened and congested condition of the cutaneous tissues, called seborrhœa congestiva. The larger part of them, however, in the proportion of three to one, were seated upon the scalp, and were either of the dry (sicca) type, characterized by white branny scales, or of the moist (oleosa) kind, marked by collections of greasy matter. This affection, commonly called dandruff or pityriasis, and often regarded as a disease of the epidermis, is really but a modified secretion of sebum, the cells of the glands failing to undergo their normal fatty degeneration and conversion into fluid oil within the glands, and escaping either in the form of dry and silvery, or greasy and adherent epithelial cells upon the general surface of the scalp. In addition to the discomfort and disfigurement it causes, it is of great importance in its relations to alopecia and eczema of the scalp. Of the former, the alopecia furfuracea of Hebra and Kohn,<sup>1</sup> it is the earliest stage, the change in the formation of the epithelial cells of the gland extending gradually to the corresponding cells of the annexed hair follicle, and thus preventing the development of healthy and long-lived hairs. It is by far the most frequent cause of early baldness, and rarely comes under treatment until its real importance is impressed upon the patient by the loss of hair. Its great frequency may be estimated by the large percentage it forms of the cases in private practice above given, for although a small proportion of the two hundred there enumerated were undoubtedly seborrhœa of the face alone, yet if to these had been added the very numerous cases recorded simply as alopecia, but which are really the later stages of this affection, it would show a still higher preponderance.

Of eczema, too, seborrhœa of the scalp is a very frequent cause, both in adult life and in childhood. The constant attempts of the patient to remove the offensive collections by such rough means as fine-toothed combs, stiff brushes, irritating hair-washes, and the like, together with the heat, itching, and scratching provoked by the presence of the scales, lead sooner or later to congestion of the skin, and in turn to chronic infiltrated eczema, or moist and acute eczematous inflammation, not only of the scalp but of the neighboring parts also. The very com-

<sup>1</sup> See the JOURNAL of June 8, 1871, for an excellent description of this affection by Kohn.

mon form of infantile eczema caused by the collection of the sebum upon the scalp can hardly be referred to this class, for in the majority of cases there is no seborrhœa present, and the formations are merely accumulations of normal sebum and dirt, in consequence of ignorance on the part of the mothers and nurses as to the importance and proper means of its removal.

That but three cases of so common an occurrence as comedones are recorded in this class is explained by the statement that only those were recorded as such in which they formed the sole affection of the sebaceous glands, and which were so abundant as of themselves to lead the patient to seek relief. Associated with acne, however, they occurred in a large majority of cases, and as an important factor in the ætiology of that disease. The same may be said of milium, so far as the individuality of the cases mentioned is concerned, but it was not infrequently seen in connection with, although forming no part of, other cutaneous diseases.

*Molluscum contagiosum* was observed nine times. The position of this mysterious affection in this class may, in the light of recent investigations into its anatomy, be looked upon doubtfully. Reference to the last semi-annual report on dermatology in the *JOURNAL*<sup>1</sup> will show that good grounds exist for the opinion that the peculiar cells which form the structure of these tumors are modifications and growths of the rete mucosum, and not of the sebaceous glands.<sup>2</sup> This change of seat, however, even if accepted as a fact, would throw no additional light into the obscurity surrounding the nature of the disease. The cases yielded no positive evidence of its contagious character, as in every instance the patient was the only member of the family affected. One case was that of a nursing mother with a numerous crop upon the left breast. Five of the patients were young children, and four of this number were only two years old. In five of them the growths were limited to the face, and were almost seated about the eyelids.

*Xeroderma*, too, of which thirteen cases were observed, is placed in this group with some hesitation. The term is used here to mean simply dry skin, the integument over parts of the body, or over the whole of it, being from birth harsh, dry, and at times scaly and cracked, as if there were a diminution in the normal secretion of both sebaceous and sweat glands. The peculiarities, however, are quite as marked in the palms, where none of the former exist, as elsewhere. This same condition of the skin is also a prominent symptom in ichthyosis, and is no doubt sometimes mistaken for that affection, even when occurring independently. The cases recorded here, however, were accompanied by no hypertrophy

<sup>1</sup> December 2, 1875.

<sup>2</sup> See paper by Dr. Cäsar Boeck, *Vierteljahrsschrift für Dermatologie und Syphilis*, ii. Jahrgang, i. Heft.

of the papillæ, which is the characteristic and essential lesion of ichthyosis, and the sealy condition of parts of the skin was due to accumulation of epidermal cells upon the surface, not to their excessive formation.

The few cases of affections of the sweat glands were of little interest. One of the cases of hyperidrosis was unilateral and partial. The cases of folliculitis, placed in the next class, were mostly inflammations of the tissues surrounding the glands, induced by excessive action of the sudoriparous glands (sudamina). They are not, however, primarily affections of the glands.

**Class IV. Exudations** (3561 cases). The great class of exudative diseases comprises, as will be seen, more than two thirds of the whole number of cases upon the list, and is divided by Professor Hebra into the acute and chronic, the dividing line being at pemphigus (Table II.). This division seems arbitrary, because some of the diseases in the first group are chronic in course at times, — some of the forms of urticaria and erythema, for instance, — while of the latter some may be acute both in type and in duration ; but on the whole, it is well founded. The first group is again divided into the contagious (the exanthemata), and the non-contagious.

The number of cases of exanthematous disease which find their way to the hospital is surprisingly small, but twenty-four cases in all having presented themselves at the skin department. That so large a proportion of these, twenty-two, were varicella seems stranger still, but can be explained, perhaps, by the facts that chicken-pox is not a "rash," that it is more variable and protracted in its period of efflorescence than the other exanthems, and that the eruption is more like that of some of the commoner skin diseases, and lasts longer than that of the others.

In the erythematous group there were seventy-three cases of erythema exudativum multiforme, eight of erythema nodosum, and one hundred and thirty-two of urticaria. The cases of the first named were distributed about equally among men, women, and children, and amongst all ages. They were most various in kind and degree. The causes were mostly obscure, but in three of them copaiba gave rise to a general outbreak. In one of the latter the body was universally covered at first with a fine scarlet papular rash, with brilliant congestion of the mucous membrane within the mouth, so as to suggest an attack of scarlet fever until it was discovered that the patient was taking the drug. Erythema papulatum was observed in twelve of the cases, confined mostly to the hands, and in nearly all of them the disease had shown a marked tendency to recur at intervals of a year or more, and to a chronic course. Erythema nodosum occurred but eight times, and was confined mostly to the lower legs of young girls and children. The arms were affected as well as the legs, in three of the cases. In many instances erythema was intimately associated with urticaria.

Urticaria occurred twice as often with women as with men, and a large third of the cases were chronic. Only in a very few instances in either class was it possible to discover the cause of the disease, either in the action of specific excitants affecting directly the skin or organs of digestion, or in any special faults of the general economy. In a few it was secondary to other skin affections of an itching character, in which the patience of the cutaneous nerves had been long abused by scratching, and in others it was similarly induced by the harassing action of animal parasites upon the skin. Many of the patients were troubled by chronic disorders of various functions and organs, and many were anaemic and debilitated, but such troubles were not more noticeable in these patients than in those affected by other cutaneous diseases of equal frequency. Neither did the results of treatment throw much light upon the aetiology of the disease in its relations to internal disorders. In some cases, however, it seemed to have more than a chance connection with chronic disturbances of digestion. In a very large proportion of them the health was, with the exception of the urticaria, faultless in every way.

The relations of urticaria to the nervous system have, like those of most skin diseases, lately been much discussed. The grounds and methods of such agitation in general will be briefly and more appropriately considered when we come to the class *Neuroses*. Dr. Bulkley, of New York, has recently called attention to the connection of chronic urticaria with exophthalmic goitre as additional evidence of such relationship, as this rare affection, otherwise called Graves' or Basedow's disease, is supposed to be due to some disturbance of the sympathetic system. He published two cases of this sort in *The Chicago Journal of Nervous and Mental Disease*, October, 1875. To these may be added a similar case from the list of patients with urticaria.

\* *Chronic Urticaria with Exophthalmic Goitre.* — The patient was an Irish girl twenty-six years old. She had always been well and strong until 1871, when she took a severe cold, which was followed by a very hard cough and repeated haemoptysis of three months' duration. She then gave up work and remained in bed, after which the haemorrhages ceased and the cough gradually disappeared. During this time her lungs were examined, but no positive signs of disease of their tissues were discovered. With the cessation of the pulmonary symptoms, there came on incessant nausea and violent vomiting whenever anything was eaten or drunk; this lasted five months. At the same time she began to have severe palpitation, paroxysmal in character, and aggravated by emotions. She then noticed for the first time that her eyes were more prominent than usual, and thinks that they were forced out by straining in vomiting. Her neck also became larger than before. During this time she was seen by several physicians, but they failed to

find any structural disease of the heart. The obstinacy of the vomiting led to the examination of the urine, and it was found to contain "albumen and casts," so that the symptoms were referred to disease of the kidneys. She went into the country and slowly recovered from the vomiting and partially regained her strength. During the last three years there has been little change in her condition, the most prominent symptom having been nearly constant palpitation, stimulated by emotional causes at times to the sensation of impending death. The condition of the eyes and neck has not changed in the same period. In April last, ulceration of the skin of the right lower leg took place, for which, and for her general state, she sought relief at the hospital. She was examined by Drs. Hayden and Knight, and mitral regurgitation and enlargement of the heart were recognized. The urine was examined and found normal.

In August, urticaria for the first time manifested itself as a general outbreak, for which she was referred to the skin department. The patient presented a startled, anxious look, and was pale. Her eyes were very prominent, and had a staring expression. Pear-shaped, flattened protuberances were seen on either side of the front neck, diminishing in size as they extended from the junctures of the clavicles and sternum upward and backward nearly to the angles of the jaws. They were soft to the touch, and when squeezed gave the patient the feeling that the "eyes were coming out of her head." The neck measured thirteen inches in its largest circumference. The urticaria exhibited itself in the form of medium-sized wheals, with occasional erythematous patches. It affected all parts of the surface, including the head. It came at all times, most frequently mornings and evenings, and apparently quite independently of diet or other appreciable agents. The attacks lasted, too, for quite variable periods, and were sometimes absent several days. The general condition of the patient was pretty good for one with so serious an organic disease of the heart. Her digestion was correct and the menstrual function regular. She was very easily startled, and the palpitation and tumultuous action of the heart then became distressing, but ordinarily, and when quiet at home, she was very comfortable. A tonic and an antipruritic wash were prescribed.

Since her first visit, her condition has remained without material change. She thinks that the severity of the attacks of urticaria are controlled to some extent by the use of the wash, and that the intervals between them are somewhat longer, sometimes extending to two or three weeks.

The dermatitides form a separate group of the acute exudative diseases in Hebra's scheme, and are subdivided by him into the idiopathic and symptomatic. The first comprises the varieties traumatica, venenata, and calorica; the latter, erythematosa and phlegmonosa. Under the head of dermatitis venenata, I have placed those inflammatory

affections of the skin which are produced by the action of certain vegetable and animal poisons when brought into more or less intimate contact with it. They include fifty-three cases of mosquito poisoning and twenty of *rhus* poisoning. They will be spoken of here that there may be no deviation from the plan of arrangement according to Hebra proposed in the beginning, even if, as in this case, the affections are regarded by the writer as misplaced. Dermatitis is a very general term, and might, with the latitude of signification here given it by Hebra, be as appropriately applied to many of the diseases of this class, to herpes or acute eczema, for instance, to the latter of which the changes in the tissues of the skin produced by contact with *rhus* properly belong.

The cases of mosquito poisoning, so called, cannot be so closely defined as to admit of a narrow classification upon the basis of pathological anatomy, for they vary greatly in their cutaneous manifestations. They represent the effects of the insertion of a peculiar poison into the skin of persons previously unused to it. In volume lxxxv., No. 19, of the JOURNAL, there was published by the writer a paper on The Protection acquired by the Human Skin and other Tissues against the Action of certain Animal Poisons after Repeated Inoculation; in that paper the appearances caused by mosquito poison were described in an account of a series of cases observed at that time. As those cases formed a part of the fifty-three above mentioned, and are strongly typical, I cannot do better than repeat here the description of them there given.

On the 28th of August, 1871, a family consisting of parents and four children, the latter between six and eighteen years of age, came to the skin-department for advice. The father and mother presented upon their faces, necks, forearms, and hands a very abundant outbreak of large and small papules, more or less prominent and mostly excoriated, among which were a few wheals and large vesicles. In the children, in addition to these forms of efflorescence, the whole skin of these parts was in an erythematous condition, and in the older two there were numerous pustular and furuncular, almost ecthymatous lesions. It was in the youngest two children, however, that the climax of the disturbance was developed; for upon them the process of free exudation was carried to its extreme limit in the form of very large bullæ, which were so generally distributed upon the regions above named as to give a predominant character to the whole efflorescence, and constitute an apparent pemphigus of extreme grade. Some of these blebs upon the arm of the boy were more than three inches long, and contained more than half an ounce of fluid. No better illustrations of the progressive passage of one form of well-defined efflorescence into another, from erythematous spot, through papule, vesicle, pustule, to furuncle, or from wheal to bleb, and of the insufficient basis their halting stages alone afford for the establishment of distinct titles in nosology, could be desired. Yet this great diversity of appearances, embracing nearly every form of acute cutane-

ous lesion recognized, was produced by one and the same exciting cause in all the cases, namely, the bites of mosquitoes. The differences presented by the various individuals of the family were such as are consistent with the well-known greater tendency to exudation in inflammatory processes of the skin in childhood than in the same affections in adult life. The subjective symptoms in all were only slight itching, and the soreness necessarily consequent upon the gravity of the lesions. There was no constitutional disturbance.

How, now, shall we explain the serious and unusual effects of so simple and common a disturbing cause as mosquito bites in this instance? Similar manifestations, and of as varied a type, although of much milder degree, I have often seen in individual cases before; but the fact of six persons of one family simultaneously exhibiting such extraordinary results shows the existence of some unusual element in the case. That element I believe to have been a want of protection against the poison of these insects through prior inoculation. The family, leaving their home in England, had arrived in Boston well and clean two weeks previous to my seeing them, and had spent that interval in lodgings in a street at the North End, where there were many mosquitoes, insects they had never seen before. Although the appearances were confined to parts exposed to their bites, they were quite unsuspicious of the cause of trouble.

Since the occurrence of the above, I have seen every summer and autumn many cases almost identical with them in character, although none more severe, so that I am confirmed in the correctness of the conclusions then offered. Even in the winter, in a single instance, I ventured to say, on seeing a patient for the first time, "Were the season summer, I should say that this was a case of mosquito poisoning in a freshly-arrived immigrant." On inquiry it was ascertained that the patient had but just landed, and had found shelter in a hot, underground dwelling, where mosquitoes were actually passing the winter in great quantities and undiminished activity. So characteristic are the appearances of these cases in spite of the great diversity of their cutaneous lesions. It is this diversity, however, which warrants the use of the general title *dermatitis* for them.

In *rhus* poisoning, on the contrary, we have neither diversity of efflorescence nor severity of inflammation enough to warrant the application of this name to the appearances of the skin. They are those simply of ordinary acute eczema, with just enough individuality in the majority of cases to suggest to the educated eye their peculiar and artificial nature. That the inflammation of the skin provoked by this poison may in rare instances exceed in depth and intensity that which belongs to eczema in its whole possible range I do not deny, but I have never seen such. An account of the nature of the poison, and a description of the cutaneous manifestations produced by it, may be found in the *New York Medical*

*Journal*, March, 1873.<sup>1</sup> In that article reference was made to the preparation of the celebrated Japanese varnish, which is made from a closely allied species of *rhus*, and to its effects upon workmen while using it. I have just received, through the kindness of Dr. Hodges, of this city, the following additional and interesting information concerning the effects of this varnish upon persons in China, which was communicated to him by Dr. A. P. Chamberlain. This gentleman spent two years in that country, and left it partly on account of the frequency and severity with which he was poisoned there. The juice of the tree is obtained by tapping, and the boys who collect it are said to die sometimes from its effects. The first time Dr. Chamberlain ever saw the varnish applied was on a rainy day, and remarking on the oddity of painting a porch of a house in such weather, he was told by the Chinese workmen that the varnish dried better in the dark and wet, and that this was one of its several "devilish" characteristics. It is only in its fresh state, Dr. Chamberlain says, that the lacquer poisons; when once dried it is inactive. He was poisoned once by unlocking a door, where an old keyhole had been stopped by putty mixed with the lacquer; once by opening a freshly-painted window for a lady; once by walking up the Hong Kong Club stairs on some pieces of board laid down temporarily on the freshly-painted stairs; once, as he believes, by passing two freshly-painted coffins in the street. At one time, while he was there, a ship, which had come down the river with some of the paint on board, took fire at the wharf. To save her cargo, it was hastily tumbled out, and one of the jars got broken. Its emanations so poisoned some of the sailors that they had to be taken to the hospital. In one of his attacks Dr. Chamberlain employed a Chinese physician. His treatment was a "whitewash" made of extract of garlic and plaster of Paris. It had no special efficacy.

The cases which occurred at the hospital were mostly among workingmen who had handled the vines of *rhus toxicodendron* while working in gardens and about stone walls, and among children after occasional visits to the country and woods. They were mostly of mild type, and would more properly have been placed with other cases of artificial eczema.<sup>2</sup> Several cases of other affections of the skin, — eczema, acne, etc., — it may be mentioned in this connection, have also been observed at the hospital, in which poisoning by ivy was referred to by the patients as the cause and starting-point of the later affection; a belief, as stated in the article referred to, of quite common prevalence in all classes of society, and well founded only so far as consistent with the possibility that such secondary affections may be indirectly due to the morbid impression left upon the cutaneous tissues by the severity of the original process.

<sup>1</sup> On the Action of *Rhus Toxicodendron* and *Rhus Venenata* upon the Human Skin.

<sup>2</sup> During the past winter cases of *rhus* poisoning have been of frequent occurrence in this vicinity, as many as ten or twelve within the writer's knowledge. They were nearly all caused by cutting sticks from *rhus venenata* while on skating parties.

Dermatitis calorica includes seven cases of burns, seven of chilblains, and twelve of folliculitis (so called). The first two, caused by extremes of temperature, presented nothing of interest; about the last a word of explanation is due. As above stated, the term, as here used, means inflammation of the skin surrounding the sweat glands, as the result of their over-activity (hyperidrosis) in hot weather. Beginning as simple hyperaemia or congestion of the capillary plexus which envelops the glands, the process advances under prolonged stimulation, assisted no doubt by the itching it excites, to well-marked inflammation of the cutaneous tissues immediately surrounding the glands. The surface of the skin presents at first the appearance of fine red dots, which rapidly become well-developed papules. In other words, we have established "prickly heat," or the sudamina of Hebra, which may go on under further provocation to eczema of any grade, or develop into the more advanced form of dermatitis phlegmonosa or furuncular inflammation. Many of the cases of eczema and of furunculosis of infants and workingmen, occurring especially in hot weather, were of this origin.

Dermatitis erythematosa. — Of the eighty-six cases in this group, fifty-two were ordinary erysipelas, and thirty-four true inflammation of the dermal tissues, not distinctly erysipelatous, and produced by a great variety of causes. In many of them the eventual nature of the process was not definitely ascertained, as they were not sufficiently long under observation. The cases of erysipelas were mostly of a mild, self-limited type, and their traumatic origin was generally made out.

Dermatitis phlegmonosa. — This group of the more deeply-seated and destructive inflammations of the skin was represented by six cases of cutaneous abscess and sixty-five of furunculosis. The aetiological relations of the latter were very diverse.

There were one hundred and one cases of herpes, including twenty-two of herpes labialis, three of herpes praeputialis, and seventy-six of herpes zoster. Many of the cases of labialis were relapsing in character, and their reflex origin could be directly traced to irritation about the anus or vagina. An analysis of the cases of zoster is presented in the following table, the anatomical divisions being those given in Professor Hebra's work.

	Men.	Women.	Children.	Total.	Right.	Left.
Zoster capillitii.....	3	1	—	4	3	1
Zoster faciei.....	—	—	3	3	2	1
Zoster nuchaæ.....	3	1	3	7	5	2
Zoster brachialis.....	2	1	6	9	5	4
Zoster pectoralis.....	12	10	16	38	17	21
Zoster abdominalis.....	2	2	5	9	2	7
Zoster femoralis.....	3	—	3	6	3	3
	25	15	36	76	37	39

In only twenty of the cases was neuralgic pain a prominent symptom at any stage. It was most marked and persistent in old people, and occurred most frequently in the thoracic and abdominal forms. In none of the frontal cases was the eye seriously affected. Nothing was learned by special inquiry in any case that threw light upon the aetiology of the affection.

The cases of pemphigus, fifteen in number, exhibited nothing of especial interest. A large proportion of them were in infants.

Psoriasis occurred one hundred and fifty-two times. The cases were in no way remarkable. In a great majority of them the patients were perfectly healthy in every other way, so far as could be ascertained, and in only a small percentage of them was any hereditary tendency to be traced.

Eczema formed nearly one half of the whole number of cases upon the list, two thousand two hundred and forty-two, and if to these were added the cases of *rhus* poisoning and a part of those of impetigo and ecthyma, as might appropriately be done, this proportion would be still greater. This percentage is extraordinary, even when considered in view of the widely open definition given to the term by the writer, including as it does several of the forms of lichen, strophulus, pityriasis, and impetigo of some dermatologists, especially those of the English school, as mere stages or varieties in form of one general inflammatory process of the skin, which cannot consistently be separated. But in the statistics drawn from similar sources by Dr. Anderson, of Glasgow, who alone among English writers on dermatology adopts this same broad definition of the German school, eczema occurred only two thousand five hundred and twenty-seven times in ten thousand consecutive cases. Certainly in private practice it does not approach this frequency of occurrence. This latter difference is, in some measure at least, due to the absence in great degree among the better classes of certain extraneous exciting causes of the disease, such as the presence of pediculi, improper care of the skin, contact with irritating matters in daily occupation, etc., but it is impossible to explain this great disparity between the figures of the Glasgow statistics and our own, which include the same classes of society. I shall not attempt to divide the cases according to the well recognized and defined varieties founded on surface appearances, such as eczema papulosum, vesiculosum, pustulosum, squamosum, and the like, nor into acute and chronic forms, partly because a large proportion of them presented several of the former varieties or stages at the same time upon different parts of the body, or at successive periods, and were equally mixed in course; and also because the cases were not as a whole sufficiently under control or long enough under observation to make such an analysis reliable, even if it were practicable. With regard to the aetiology of the affection, an analysis of the cases may, perhaps,

afford more valuable information. The following table will show, for example, the comparative prevalence of the disease in the two sexes at various periods of life :—

Ages.	Males.	Females.	Total.
<b>Under 1 year</b> .....	157	112	269
<b>Between 1 and 5</b> .....	236	261	497
“ 5 “ 10.....	74	125	199
“ 10 “ 15.....	39	75	114
“ 15 “ 20.....	42	52	94
“ 20 “ 30.....	134	129	263
“ 30 “ 40.....	139	110	249
“ 40 “ 50.....	122	129	251
“ 50 “ 60.....	91	83	174
“ 60 “ 70.....	55	55	110
“ 70 “ 80.....	14	8	22
	1103	1139	2242

It will be seen that eczema occurs oftener in the first than in any subsequent year of life, and that starting with seven hundred and sixty-six cases in the first five years, its frequency diminishes in the subsequent periods of equal length up to the twentieth year, when it begins to increase. The same result is more strongly developed if its comparative prevalence is expressed by decades ; thus in the first decade the table presents nine hundred and sixty-five cases, in the second two hundred and eight, in the third two hundred and sixty-three, and so on. This excessive prevalence of the disease in earliest childhood, and especially in the first year of life, must be owing, in some measure, to the very tender condition of the cutaneous tissues at this period and to the improper care it receives among the classes here represented, although this will account but for the smaller proportion of the cases, I think. It would be, perhaps, impossible to make a comparative estimate of the occurrence of infantile eczema of this class and that of other classes of society, because the latter is seldom seen by the specialist, but is treated by the family physician.

In a great majority of cases the cause of the disease could not be discovered. Some of the patients were poorly fed, weak, and anæmic, or sick in other ways, but such were the exception, and certainly three fourths of them were well nourished and in good condition in every way otherwise, except for the effects upon the health due to the eczema itself. Like all other infants, those with eczema were “teething.” The disease, and this may be said of adults as well, was not found to be prominently associated with, far less dependent upon, any special disorder of digestion, errors of diet, rheumatic diathesis, blood change, perverted innervation, hereditary influences, or others of the many recently assumed causes of its production. As he recently stated in the JOUR-

NAL,<sup>1</sup> the writer would not deny that there are often in patients with eczema faults of the general economy, or disorders of special organs and functions, but that they are generally or necessarily present, or that when present they can be demonstrated in most cases to be the cause of the disease, cannot be accepted except upon some show of legitimate evidence. His observations of these cases, as well as of those in private practice, confirm him in the conclusions there expressed, that the causes of eczema are almost wholly unknown, not yet within the range of demonstrative reasoning, in which respect it is like most diseases of the skin, like most diseases in general.

As exceptions to this confession of ignorance are to be regarded the cases of artificial or extraneous origin, of which, as will be seen, not a few were observed. The action of irritants in exciting eczema has been alluded to above in connection with some of the cases of dermatitis calorica and venenata. Of the influence of heat in this direction there were fifty examples, which occurred during periods of excessive solar heat, and mainly in young infants and laboring men. Beginning, many of them, as the folliculitis there described, the inflammation extended to the surrounding cutaneous tissues in the form of acute eczema, and was often accompanied by painful furunculosis. The direct application to the skin of the following substances gave rise to acute eczema: arnica,<sup>2</sup> one case; sulphur in lard, two; blister, one; cantharides wash, one; mustard bath, one; tincture of balm of Gilead buds, one; salt pork slices, two; cyanide of potassium, one; alkalies, two; mercurial ointment, two; croton-oil, one; poultices, four; liniments (nature unknown), twelve. In certain occupations the hands were affected from contact with similar substances, as follows: currier, one case; washerwomen, two; bartender, one; sugar workers, two; soap maker, one; bakers, seven; printers, two; burnishers, three; polishers, two; dye-house man, one. The most frequent cause of artificial eczema, however, was the irritating presence of lice. Of such cases there were two hundred and seventeen recorded, but there were doubtless others. They were mostly eczema of the scalp and adjoining parts. A few of them were caused by clothes lice. In not a few instances the local origin of the eczema, although not of an extraneous nature, could be made out. Upon the lower legs it could be referred, in many cases, to disturbance in the circulation produced by varicose veins. Here it was mostly of a chronic type. It followed vaccination, beginning about the seat of inoculation in eight instances, and was the result, not of any impurity of virus or direct transference from another person, but of the disturbance of the whole cutaneous tissues in a patient disposed to the disease. The same effect is often produced by measles and other exanthemata, a more or less gen-

<sup>1</sup> December 2, 1875.

<sup>2</sup> See JOURNAL, January 21, 1875.

eral eczema immediately following their disappearance in consequence of the excitement of the skin they give rise to. Several instances of this kind were observed. In a few cases eczema was directly caused by the irritating character of discharges from the ears and nostrils in affections of these passages, and in a few others, in which the skin surrounding the mouth and nostrils was affected, it was sympathetic with irritation about the genital or anal regions. In a great many cases the disease was of secondary origin, and was scratched into existence in the course of other affections of which pruritus was a marked symptom.

The sexes were about equally represented in the table, and were quite uniformly so at all ages, excepting the period from five to fifteen years, in which the number of girls affected was twice that of the boys. It is possible that this apparent inequality may be explained by the fact that boys of this age are far less tractable than girls, and therefore are not so easily induced to come to the hospital for treatment.

It would not be worth while to attempt to subdivide the cases into as many varieties, according to regional distribution, as are given in many works, because any single limited district is so seldom alone affected, except in the cases of local origin as above given. In specifying the distribution of the disease, therefore, I shall refer only to the general divisions of the body, and it will be understood that only portions of these were in the great majority of cases implicated in any individual case. Eczema affected the head, including the neck, in one thousand one hundred and sixty-seven cases; the trunk in two hundred and twenty; the arms in one hundred and seventy-five; the hands in two hundred and eighty-five; the legs in four hundred and sixty-three; the feet in forty; the genital and anal regions in ninety-three; and the whole body in seventy-three cases. The head and neck are here considered one region because eczema of the latter is generally associated with that of the face and scalp. The hands, as will be seen, suffered much more frequently than the arms, partly, no doubt, on account of their greater exposure to fluctuations of temperature and moisture, to contact with irritating substances, and to the pressure, friction, and strains to which they are so generally liable. So, too, eczema of the genital and anal regions is combined, because the former is so frequently the starting point of the latter. The cases of general or universal eczema were mostly infantile.

Scabies occurred only one hundred and thirty-nine times. The fluctuations in the prevalence of this disease during the past twenty years have been remarkable. In the early part of this century, if report be true, it was quite a common affection in many parts of New England, and was one of the evils to be especially guarded against at public schools, as lice are now. Later, it died out so largely that physicians were generally unacquainted with its appearances, and often failed to

recognize it, the disease appearing only at intervals in any community, and being kept up apparently through fresh importation by immigrants. During the war of the rebellion, however, it found the most favorable conditions for development in the camp life of our soldiery, and soon became a universal and serious endemic in the armies. But so little familiar were our military surgeons with scabies that it was regarded as some peculiar form of the disease, and was called army itch. It was not confined to the camps, however, but was carried to their homes all over the land by returning soldiers of all ranks, and imparted to the household. In this way all classes of society became affected, and the disease once more became familiar to physicians. After the war ended it very slowly subsided, until in the past few years it has again become, in New England at least, as rare an affection as it was twenty years ago. This is strikingly shown by a comparison of its yearly occurrence since the skin-department was opened. In 1869, its first year, there were eighteen cases among the one hundred and nine patients; in 1875 but eight cases were observed in one thousand and seventy-three patients, and among the two thousand and twenty-seven patients of the last two years it occurred but twenty-five times. It is becoming, in fact, a difficult matter to properly illustrate the disease to classes, and were it not for its occasional importation through foreign immigration, it might become obsolete here. If we compare now the prevalence of the disease amongst us and in European countries we shall find a most marked difference. In the Vienna skin clinic six hundred and seventy cases were treated in 1871, and of Dr. Anderson's ten thousand consecutive cases of skin disease in the Glasgow hospital, two thousand five hundred and twenty-seven were scabies; whereas among more than ten thousand similar cases in our two Boston hospitals, it occurred only two hundred and fifty-three times. Such difference can be accounted for only by the more cleanly manners of all our classes. With such abundant foreign sources of supply to colonize from, *sarcoptes hominis* will scarcely become extinct in our day.

**Acne.** — As above stated, it is mostly in connection with the affections of the sebaceous glands that the most notable difference between private and dispensary practice is observed. Regarding acne as one of their advanced stages, a comparison of its occurrence in the two classes of patients confirms the data there given. In the five thousand hospital cases it was observed three hundred and forty-eight times, whereas among the two thousand tabulated from my private case-book it occurs three hundred and sixty times. The cases comprise acne disseminata, acne rosacea, and non-parasitic sycosis, and present little of special interest. The accompanying table shows the distribution of the cases of simple acne according to sex and age.

	Ages.	Males.	Females.	Total.
Between 10 and 15.....		—	10	10
" 15 " 20.....		32	94	126
" 20 " 25.....		30	59	89
" 25 " 30.....		11	14	25
" 30 " 35.....		10	13	23
" 35 " 40.....		3	8	11
" 40 " 45.....		4	12	16
" 45 " 50.....		3	8	11
" 50 " 60.....		7	2	9
" 60 " 70.....		1	1	2
		101	221	322

It will be seen that by far the larger part of the patients were between the ages of fifteen and twenty-five, and this proportion would be much larger if all the cases which began during this period were added to it, the ages given being those at which the patients presented themselves for treatment. In many it had already existed for years. The youngest of them was thirteen years old. The apparent difference in frequency of occurrence between the sexes must not be regarded as an actual representation in this respect, because girls care so much more for their "complexion," and seek medical relief accordingly. Nothing was learned by inquiry or observation in the whole series of cases which would satisfactorily explain the occurrence of acne. It was associated with disturbances of the digestive and sexual systems in a small proportion of cases, but just these disturbances are among the most common ills of the period of life in which acne most frequently occurs, and yet are only exceptionally accompanied by the latter. That the cutaneous affection is often aggravated by such internal disorders is, without doubt, true.

The few cases of impetigo (nineteen) and ecthyma (fifty-five) here recorded need but a word of explanation. The names do not necessarily signify distinct individuality of the affections included under them, but certain conditions of the skin due to a variety of causes, and closely allied to, or merely advanced stages of, eczematous inflammation. The distinction between them is largely one of degree; impetigo meaning the occurrence of small, discrete pustules without other accompanying forms of efflorescence, and not in the course of other cutaneous diseases, and ecthyma comprising the larger and deeper seated forms of efflorescence, such as occur in connection with, or as sequelæ of several affections of the skin accompanied by irritation, and in persons whose general condition is below the healthy standard. Groups of cases presented themselves in several instances which might, perhaps, be called impetigo contagiosa, if we were prepared to admit the existence of such an independent affection. They were remarkable, however, chiefly for oc-

curring simultaneously in members of one family or of contiguous households, but individually were not strikingly peculiar. Similar cases at least, if occurring singly, would not attract especial attention. No element or certainty of contagion was discovered in connection with them.

Class V. *Hæmorrhages* (19 cases). The affections comprised under this class were cases of simple purpura. They were of a mild type, affected mostly the legs, and were rarely associated with apparent disturbance of the general economy; indeed, the presence of the attack was in several instances discovered only by accident. A feeling of slight weakness in the legs was the most prominent accompanying symptom. Several of the cases were chronic in course, outbreaks of the hæmorrhagic spots following each other either continuously or interruptedly for weeks and months. Unfortunately, they yielded no insight into the causes of this mysterious disease.

Class VI. *Hypertrophies* (40 cases). The hypertrophies of the cutaneous tissues are divided by Hebra into three groups, characterized as follows: 1st, increase of pigment; 2d, thickening of the epidermal or horny layer with or without accompanying changes in the papillæ, called keratoses; and 3d, hypertrophies of the connective tissue. In Table II. the separation of the last two is not properly indicated, scleroderma and elephantiasis arabum belonging to the third group. The cases of pigment change included in the list, eighteen in number, were trivial in character, and consisted of an abnormal increase in amount of the colored cells of the rete distributed either in the form of small spots, lentigines; larger patches upon the face, chloasma (moth); or more extensive and more generally distributed stains upon the skin, melasma or nigrities.

Among the keratoses, or affections of the epidermal structures of the integument and its appendages, the most interesting cases were five of ichthyosis and one of cornu cutaneum. Of the former, four were girls between the ages of four and nineteen; the other was a man, aged twenty-six. All had had the affection from earliest childhood. It was of a mild type, ichthyosis simplex, and of general distribution. In one of the cases only was there an approach to the form called ichthyosis hystrix, and in this only of partial distribution. All but one were in good general health.

Cornu cutaneum penis. — The case of cornu was a remarkable one, and deserves especial mention. The subject was a gentleman thirty-six years old, who at the age of twenty-two was circumcised for congenital phymosis. The surface of the glans and sulcus coronalis remained ever afterwards very sensitive, and there was an undue amount of seborrhœal secretion from the parts. In 1870 this secretion became still more excessive, and the parts gradually assumed the condition he

presented at his first visit, in October, 1874. At that time the remnant of the foreskin, about a quarter of an inch in length, was converted into a thickened collar standing up perpendicularly to the body of the penis, and having a horny, cartilaginous feel. The exterior cuticular portion was red and scaly; its inner surface, the deep cavity of the sulcus, and the posterior half of the glans around their whole circumference, were uniformly covered with a thick, white, pasty coating. This material was soft in some parts like putty, in others, where exposed to the air, as hard as spermaceti, and could be dug out with a knife by the patient from behind the glans to a considerable depth without sensation. The only thing complained of by him was the inconvenience and annoyance of the affection. When pressed upon, "it hurt," he said, "just as any other foreign substance would in such a sensitive location." The formation of the material was stated to be quite rapid, "at the rate of one-hundredth of an inch in thickness per diem." From the parts exposed it sometimes cracked off when dry, but the material was everywhere kept down by the patient by frequent scraping with a knife. This was the only treatment the disease had received. Some of the substance was examined by the microscope, and found to be composed of epithelial and sebaceous cells. Of the condition of the skin beneath the coating nothing could be learned, as it was completely concealed by it. The patient was directed to envelop the parts in a thick layer of diachylon ointment spread upon cloth by night, to apply sweet oil freely in the morning, then to wash them with soft soap, and to keep them covered by day with a cloth thickly spread with glycerin-plasma. A strong solution of tannin in glycerin was also to be painted on daily after the removal of the coating. . . . After a fortnight's treatment the patient wrote: "The results are very satisfactory so far. The ointment softens the layer, and the oil and soap aid the process so that after their use I can remove with my knife thin layers from the surface of the secretion by simple scraping, without cutting and without injury to the part, and I have thus removed more than nine tenths of it. On the removal of this dense, gristly mass the foreskin, which you saw curled up, and which could not be straightened, has now resumed its original form, flattening out into its natural shape. The whole layer is now so thin that it is no longer white, but flesh-color, from the color of the subjacent skin. The tannic acid now penetrates and causes in some places a certain amount of redness and congestion underneath. I am confident that the daily amount of secretion is much less."

I heard nothing further from the case for seven months, when the patient wrote that he had used the treatment four months and then had left it off to see what had been accomplished. The result, as he stated, was that in a month the parts were again covered as thickly as before, and that they had also become quite sensitive and at times painful. The

matter had collected to one fourth of an inch in thickness in some parts, and when removed was found to grow from closely-matted, fringe-like projections rising from the surface of the skin. In other parts the base was described as resembling a seed-wart. Where the disease bordered upon the true skin at the edge of the prepuce the growth was said to be as "hard as horn."

Six months afterwards, when he came for further advice, a great change was found to have taken place in the affection; from its seat, as above described, had grown up a remarkable horn. Its base occupied the inner surface of the remnant of the foreskin, the sulcus coronalis, and the adjacent half of the glans, narrowing in width gradually on the under side of the organ, and failing to meet and complete the ring only by the breadth of the frænum, which remained unaffected. In its widest portion for two thirds of its circumference the base measured three fourths of an inch. It had a uniform height of about half an inch, but in its central portion, corresponding to the median line of the dorsum penis, the growth presented a marked prominence or peak more than three fourths of an inch in height. Its greatest diameter laterally was an inch and a half, while from the dorsum to the frænum it measured an inch and an eighth. Viewed from above it resembled the vertebral axis in shape more than any other familiar object of comparison, the central opening occupied by the free surface of the glans corresponding to the cavity for the spinal cord. Its perpendicular surface was marked by parallel upright striae and ridges, resembling coarse nail-tissue, while its broad, plane tip offered a transverse section view of its lamellar or fibrous structure. Its color was yellowish-white. The exterior surface was very firm and horn-like, but the central portions were comparatively soft and waxy in consistence.

Excision of the horn was advised, and the operation was performed by Prof. H. J. Bigelow. The growth was dissected away entire with the scalpel and scissors, and the mucous membranes of the foreskin and glans were brought together by sutures, as in the operation for phymosis. Some little haemorrhage followed, and the wound healed well. Examined by the microscope after removal, the outer surface was seen to be composed of epithelial cells compressed into compact fibrillæ or longitudinal bundles, which on cross section appeared to be arranged somewhat concentrically. The cells which made up the inner portion were far less compactly or systematically arranged, and numerous small, empty interspaces were visible between them. At the junction of its periphery with the skin, the epithelial cells of the horn were seen to be continuous with those of the mucous layer of the epidermis, and the papillæ were found to be greatly elongated and running up into the growth. No examination of the dermal tissues underlying the central portions, the sulcus, was made, so that the relations of the growth to the

sebaceous glands of the part were undetermined. There would seem to be little doubt, however, as to the mode of development in this case. In consequence of the congenital phymosis the glands of the head of the penis had been stimulated into overactivity, and the retention of this secretion beneath the prepuce had caused an inflammatory action of its inner surface and of the opposing glans. After circumcision the parts remained still very sensitive and the secretion excessive. It is very probable that even then there may have been some papillomatous growth from the sulcus, as is so frequently the case after balanoposthitis from any cause, but at the time of his first visit nothing could be learned as to the condition of the tissues below the thick epidermal coating. At least after the subsequent removal of the latter by the means suggested at that time a closely-matted, fringe-like outgrowth was seen by the patient, which was undoubtedly hypertrophied papillæ. The rapid course from this period and the horny transformation of the cell-growth have been sufficiently explained above. We have here, then, all the elements essential to the formation of horns in accordance with the theory of their development either from disorders of the sebaceous glands or from hypertrophied papillæ, the cells of the rete, of which they are composed, being deflected downwards to line the former or upwards to cover the latter. In the last semi-annual report on dermatology<sup>1</sup> will be found an account of a case very closely resembling this, by Professor Pick, of Prag, who gives two colored plates of the growth, which would serve equally well for ours, had the latter been allowed to grow a little longer. The history of the two horns, moreover, was very similar. Both affected individuals were below middle life, both had undergone circumcision for phymosis, and in both the growth was of very rapid formation. Dr. Pick in his article refers to ten other cases of horns upon the glans and foreskin. This one will make the twelfth, therefore, of this rare affection.

Under hypertrophy of the connective tissue there are placed four cases of scleroderma and five of elephantiasis arabum, diseases closely allied in their anatomical structures, but little similar in their aetiological relations. Of the former, three of the cases have already been reported at length;<sup>2</sup> the other may be briefly described here. The patient was an Irishman, fifty-one years old. In August, 1874, he was under treatment at the skin department for chronic papular eczema of the limbs, the legs being the parts principally affected, which disappeared in a few weeks. In October, 1875, he came again, stating that his hands had been getting hard for a year. The integument of the whole hands was found to be very firm, and the fingers were of a stony hardness, semiflexed, and immovable in their farther joints. The hands looked

<sup>1</sup> The JOURNAL, December 9, 1875, from *Vierteljahrsschrift für Dermatologie und Syphilis*, 1875, page 315.

<sup>2</sup> Archives of Dermatology, New York, July, 1875.

dried up and horn-like. The pigment and glandular structures were apparently unaffected. Elsewhere upon the body the integument was then in a normal condition, and the general health was unaffected. The local sclerosis was probably in no way connected with the more general eczema which preceded it.

Three of the cases of elephantiasis arabum, or pachydermia, deserve some notice. The first is especially interesting as an illustration of that variety which is associated with and apparently caused directly by periodical attacks of erysipelatous inflammation of the cutaneous tissues and the ensuing oedema. The patient was a girl, aged twenty-three, who for nine years had had recurrent erysipelatous inflammation of the right hand and fore-arm at irregular intervals of few or many months. The acute stage was generally of short duration and accompanied by nausea, headache, and fever. Desquamation followed, and the parts were left swollen for a considerable time; the duration of the oedema increasing with each such successive attack. When seen, the integument of the right hand and lower fore-arm was moderately thickened and firm, but presented no unusual surface-changes. No cause for the frequent attacks of dermatitis could be discovered. The second case was an Irishwoman fifty-six years old. For six years her right leg had been gradually enlarging from the knee downwards, without apparent cause or any positive symptoms, local or general. For a year before her visit the skin of the part had become eczematous, chiefly through scratching, and it was this symptom which brought her to the hospital for relief. The skin of the lower two thirds of the leg was greatly thickened, so that the part was about one half as large again as the corresponding portion of the other. Just above the ankle there was quite a deep sulcus. The eczematous condition, which so often accompanies the affection, was in the rubrum stage, and was secondary to the deeper tissue changes. The case deserves notice principally for the entire absence of previous inflammatory processes within or beneath the integument, or other of the usual exciting causes of the affection. The third case to be mentioned was an erect and stoutly-built American woman, five feet eleven inches in height. She was born in Vermont, and is forty-eight years old. In early life she had some "humor," and afterwards "salt rheum" until puberty, at the age of sixteen, when it disappeared. Twenty-five years ago, when twenty-three years old, she sprained her left ankle, and dates her trouble back to that event. The part never became quite strong again, and some months afterwards it began to be red and swollen, and itched greatly. It was much scratched, but there was no breaking of the skin or ulceration, although the veins became varicose from the knee downwards. From this period the leg constantly increased in size, although very gradually, the surface-changes in the skin never wholly disappearing.

At twenty-six she was married, and has given birth to three healthy children. She never had milk-leg or other puerperal process. Nineteen years ago she could wear, by stretching, an ordinary stocking, but four years afterwards she was obliged to have a special last made for her foot. Its greatest increase in size, fully one half, has been gained during the past ten years. Sixteen years ago she for the first time had a chill, followed by feverish reaction, but without any especial local symptoms. Since then these attacks have been numerous, several each year, accompanied or preceded by pain extending from the sole of the affected extremity to the hip. Red streaks are seen running up the leg, but there is no pain produced by deep pressure or impeded motion in the limb at such times. Nausea has been a constant accompaniment of the attacks, which last about forty-eight hours. There have been three so-called abscesses in different parts of the leg below the knee, discharging, when opened, one half a cup of clear, colorless, thin fluid, and continuing to run for some time afterwards (lymphorrhœa). At other times a similar fluid has oozed from the deep fissures in parts of the skin. She never feels so well generally when the parts are leaking in this way. Seven years ago a chronic ulcerative process of the skin began on the right wrist and left elbow, which lasted many months, and left scrofulous-looking scars and some still prominent and red tubercles there.

When first seen, four years ago, her condition was recorded as follows: Patient manages this enormous limb with comparative ease and little suffering. She is able to walk quite long distances, and does her general housework with little fatigue. The catamenia have not yet ceased, and her general health is good enough.

The left thigh just above the knee-joint is somewhat fuller than the corresponding portion of the right, but the patella is easily felt. Below the knee the limb bulges abruptly to an immense mass, and continues of about the same size nearly down to the ankle. The foot is also much enlarged, and the skin covering the dorsal surface of the toes is very thick. Half-way down the calf the mass is divided by a very deep sulcus. To the feel it is brawny and resisting, not pitting easily on pressure. The surface of the skin covering the upper portion of the leg is coarse in texture, the hair follicles being widely separated, and largely occupied by eczematous fissures. Over the lower third and upon the dorsum of the foot the skin is largely covered by thick collections of discolored epidermal scales, separated in parts by deep fissures or sulci. In a few places the elongated papillæ, capped by brown epidermal tips, stand out individually or in slender groups, forming a sort of shag. All parts of the leg are at times affected by eczema, and itch extremely.

The dimensions of the two legs are —

	Left.	Right.
Three inches above patella.....	22 inches.	22 inches.
Around patella.....	22 "	19 "
Middle of calf.....	29 "	17 "
Below sulcus.....	28½ "	
Just above ankle.....	20½ "	12 "
Between folds at ankle.....	16½ "	
Over dorsum of foot.....	14 "	9 "

The patient weighs two hundred and twenty-five pounds.

Since 1872 there has been but little change in her condition. The leg certainly has not gained in size, and the eczema has been kept under by the applications used. There have been no fresh attacks of inflammation of the lymphatics or discharge of lymph from the part. The patient weighs at the present time two hundred and fifty pounds.

*Class VII. Atrophies* (37 cases). The instances of atrophy, although mostly of the rarer forms of cutaneous disease, were not of themselves remarkable. The case of leucoderma was simple and partial, the skin of the parts affected being unchanged, except in the loss of the pigment-cells. The maculæ atrophicæ occurred in a man to a very marked degree, being seated upon the thighs and hips. They were of an elongated, oval form mostly, and of a glistening, bluish-white color. No cause of their formation was apparent. Of the cases of atrophy of the hair, so called, eleven were due to preceding seborrhœa of the scalp, alopecia furfuracea, the most common form of baldness. The others, nineteen, were cases of alopecia areata, and are placed in this class in conformity with Hebra's arrangement. It is not my intention to discuss here the vexed question of the pathology of this affection; but that it is of a mixed character, or, in other words, that there are specific clinical differences in the cases, and that a parasitic element may be observed in some and not in others, are conclusions I have drawn from both hospital and private practice. Several of the cases were of many years' duration, and in these the scalp, eyebrows, and eyelids were almost wholly denuded of hair. In five instances some other member of the family was affected in the same way.

*Class VIII. Benign New Growths* (82 cases).<sup>1</sup> The eleven cases of keloid varied in extent from the single outgrowth of the size of a pea upon some to several elevated patches as large as the hand upon others. It is difficult in some cases to discriminate between true spontaneous keloid and the false or hypertrophied scars. In some instances I think there can be no doubt that unmistakable cases of the former have their origin in minute scar formations, perhaps the inconspicuous seats of former acne pustules. With one case of pronounced keloid atrophy of

<sup>1</sup> The number of cases included in this class is wrongly given in Table II., the affections enumerated in the first line of the text under Class XI. (lupus and scrofuloderma) belonging here.

pigment in the surrounding skin was associated, of the same form as in Wilson's morphœa. Two of the most extensive cases were in negroes. One of the two cases of molluscum fibrosum was that described by Dr. Wiggolesworth in the April number of the *Archives of Dermatology and Syphilis*; the other was of a trivial character.

Lupus vulgaris occurred but eleven times. This appears to be a remarkably small percentage, but true lupus in my experience is a very rare disease in New England compared with its prevalence in Europe. The name as here used does not of course mean that heterogeneous mixture of affections which makes up the lupus of many surgical works and hospital reports, and which includes nearly every form of chronic ulcerative and crusting disease upon the face. Lupus erythematosus was relatively more common. The twenty-seven cases of so-called scrofuloderma represent a great variety of processes affecting the cutaneous tissues of persons exhibiting signs of that general condition recognized as scrofulous or strumous. This group may be regarded as a convenient temporary receptacle for a class of affections which cannot well be placed elsewhere, but which closer analysis will no doubt enable us to distribute more appropriately in the future.

Class IX. *Malignant New Growths* (26 cases). One case of elephantiasis Graecorum, or true leprosy, was observed, and was the more remarkable that the patient was of native New England stock and had never been out of the United States, nor had there been in his family any record of such disease. It was of several years' duration, and the cutaneous manifestations were of the tubercular type. The cases of epithelioma were nearly all of the superficial form, and affected the skin of the face, the deeper-seated forms and cases in open ulceration naturally seeking relief directly in the surgical department. The most noteworthy features in them were the frequency with which the sebaceous glands were the starting-point of the affection, and the early age at which the disease manifested itself in several cases, the patients not being above twenty-five years old.

Class X. *Ulcerations* (309 cases). Nearly all the cutaneous ulcers here included were seated upon the lower leg, and were of the most ordinary character. A large proportion of them were associated with eczema of the part, either primarily or secondarily, in the first instance provoking the inflammation in the surrounding skin by the nature of their discharges or of the applications made to them, or in the latter case being themselves the result of devitalization of the cutaneous tissues by the chronic eczematous process.

Class XI. *Neuroses* (52 cases). Were all the affections of the skin included in this class which have been claimed by the neuro-pathologist in recent times as belonging to it, there would be little need of other classes to receive them, for there is scarcely a disease among them which

some writer has not guessed to be caused by "abnormal innervation," "trophic disturbance," or other familiar verbal formulæ of the sort. Now that its filaments have been traced through the corium up into the epidermal cells, the intimate connection of the whole skin with the nervous system has been as fully established as that of all other parts of the body; but why it should be selected as the favorite field of the neuro-theorizers of to-day is not clear, unless it be that electro-therapeusis can be so directly brought to bear upon it. There is no more reason why affections of the skin should *a priori* be regarded as neuroses than structural diseases of the liver, or lungs, or kidneys. That disturbances of cutaneous sensibility are frequently associated with and caused by cutaneous affections, that similar disturbances of sensibility often lead secondarily and indirectly to structural disease of the skin, and that structural disease of nerves and their ganglia may directly give rise to certain well-marked forms of efflorescence are well-established facts, because they rest upon sound observation; but beyond this most of what has been written upon the neuro-pathology of skin diseases is merely surmise and of the blindest character. Nerves go everywhere, they are distributed to all parts of the skin, they regulate all its functions and growth; therefore, if anything about it goes wrong they are at fault, say the neuro-pathologists. The blood permeates all the tissues of the skin, it supplies the nutrition upon which the growth and functions of the latter depend, itself may be laden with peccant elements, therefore, if the skin is diseased it is the blood, said the humoral-pathologists. Let us be content with the teachings of observation. That zoster might well be placed among the neuroses is universally acknowledged, but the only other affections upon the list which can claim a position in this class are the fifty-two of simple pruritus and the two of exalted sensitiveness of the skin, or hyperæsthesia. Associated with the cases of pruritus were many secondary changes in the skin, such as are capable of being excited into existence by scratching and other means resorted to for allaying itching.

Class XII. *Parasitic Affections* (549 cases; vegetable 278, animal 271). Tinea tonsurans was by far the most common of the former. Its varieties in the one hundred and eighty cases observed were as follows: Forty-two were seated upon the scalp, and affected children exclusively; thirty-eight were of the bearded parts of the face in adult males, parasitic sycosis; while the other hundred cases were ordinary ringworm upon various parts of the body, mostly those unprotected by clothing, in persons of both sexes and all ages. Most of the children with the disease upon the scalp had also ringworms upon other parts of the body, or had had them in the earlier stages of the affection. Nearly all the cases of parasitic sycosis, too, began as simple ringworm of the bearded face, which in periods ranging from three to twelve weeks

assumed the characteristic appearances of this later stage of the disease, and many of them exhibited recurrent outbreaks of the circinate form upon other parts of the body, which served as more fertile sources of contagion to other members of the family during the prolonged course of this most stubborn disorder. A large proportion of these patients were sure that they had taken the disease at the barber's shop. All forms of the affection were shown to be easily transmitted and contracted. The clinical history and microscopic examination of these cases of sycosis make the existence and even the frequent occurrence of the parasitic form of the disease a matter far removed from question, and the refusal of Professor Hebra to accept the former inexplicable, although there can be no doubt that it is much more common here than in Vienna.

Tinea versicolor comes next in order of frequency, and in this respect it would doubtless approach tinea tonsurans nearer, were as large a proportion of the cases which really exist treated, for whereas the latter in all its forms occurs generally upon the most exposed parts of the surface, tinea versicolor avoids these altogether, and may exist even for long periods of time without betraying itself to the bearer, so slight in many cases are the subjective symptoms it causes. The extent of surface affected varied from a few small circular patches in some patients to its almost continuous distribution over the trunk and limbs in others, giving a uniform dark-buff or brown color to the whole skin, excepting the face and hands. In many instances the disease was discovered incidentally in the examination of the chest by the physicians of the other departments of the hospital. In a large proportion of the cases it had existed several years, generally extending in summer and diminishing somewhat or being less apparent in winter. In four cases only out of the eighty-one did inquiry elicit the fact of its known transference from one person to another, even among married people, in cases of many years' duration, nor was anything learned of the ways in which the disease is generally contracted.

Tinea favosa occurred only seventeen times, and even this small number by no means represents so many individual instances or centres of the disease, because more than half of them were cases where two or three members of the same family were affected. In the others no known transference to other hosts had occurred. All of them had existed for a long time, and in all but three the growth was confined to the scalp. In one case it not only covered the scalp, but large portions of the trunk and parts of the limbs.

Tinea decalvans was represented by some of the cases placed under alopecia areata, but what proportion of these were parasitic cannot be stated for want of complete observation.

From this very brief analysis of the vegetable parasitic affections we

may draw the following conclusions: *Tinea tonsurans* in all its forms is of very frequent occurrence, is easily communicated, and the latter may sufficiently explain the former. *Tinea versicolor* is less common, but occurs oftener than is suspected, and it is communicated with very great difficulty. It is probable, therefore, that extraneous sources of contagion exist about us, the nature of which is as yet unknown. *Tinea favosa* is here very rare, and occupies with respect to contagiousness an intermediate position between the above.

**Animal parasites.** The number of cases of *phtheiriasis capitis* recorded might no doubt have been greatly increased if every patient had been specially examined for the presence of pediculi. The number given includes only those cases in which the parasites were the cause of so much eczematous inflammation of the scalp and contiguous parts as to lead to their discovery.

It would have been more satisfactory if, in concluding these necessarily brief and imperfect notes upon the occurrence of skin diseases at the out-patient department of the hospital, the results of treatment might also have been presented, but, as stated in the beginning, the control of the physician in charge over this class of patients is so uncertain that any such conclusions must be in the main imperfect and unreliable, and therefore unwarranted.



